

Appn. Number 10/622,303

(Sung et al.)

GAU 1614

Amnt. B contd.

Page 3

RECEIVED  
CENTRAL FAX CENTER

JUN 21 2007

**AMENDMENTS TO THE CLAIMS:**

Please withdraw claims 1-11 from further consideration. Please amend claim 12. Please cancel claims 13-20. Please add new claims 25-26.

A complete listing of all claims and their current status is presented below.

- 1(withdrawn). A pharmaceutical microsphere, comprising:  
a bioactive agent; and  
a biological carrier that encapsulates said bioactive agent, wherein the biological carrier is crosslinked with a crosslinking agent.
- 2(withdrawn). The pharmaceutical microsphere of claim 1, wherein the crosslinking agent is genipin, its analog, derivatives, and combination thereof.
- 3(withdrawn). The pharmaceutical microsphere of claim 1, wherein the crosslinking agent is selected from a group consisting of formaldehyde, glutaraldehyde, dialdehyde starch, glyceraldehydes, cyanamide, diimides, diisocyanates, dimethyl adipimidates, carbodiimides, epoxy compounds, and mixture thereof.
- 4(withdrawn). The pharmaceutical microsphere of claim 1, wherein the crosslinking agent is selected from a group consisting of dimethyl suberimide, succinimidyls, acyl azide, ultraviolet irradiation, dehydrothermal treatment, tris(hydroxymethyl)phosphine, ascorbate-copper, glucose-lysine and photo-oxidizers.
- 5(withdrawn). The pharmaceutical microsphere of claim 1, wherein the biological carrier is selected from a group consisting of collagen, gelatin, elastin, chitosan, N, O, carboxymethyl chitosan, and mixture thereof.
- 6(withdrawn). The pharmaceutical microsphere of claim 1, wherein the bioactive agent is selected from a group consisting of analgesics/antipyretics, antiasthmatics, antibiotics, antidepressants, antidiabetics, antifungal agents, antihypertensive agents, anti-inflammatories,

Appn. Number 10/622,303 (Sung et al.) GAU 1614 Amnt. B contd. Page 4

antineoplastics, antianxiety agents, immunosuppressive agents, antimigraine agents, sedatives/hypnotics, antipsychotic agents, antimanic agents, antiarrhythmics, antiarthritic agents, antigout agents, anticoagulants, thrombolytic agents, antifibrinolytic agents, antiplatelet agents and antibacterial agents, antiviral agents, antimicrobials, and anti-infectives.

7(withdrawn). The pharmaceutical microsphere of claim 1, wherein the bioactive agent is selected from a group consisting of actinomycin D, paclitaxel, vincristin, methotrexate, and angiopeptin, batimastat, halofuginone, sirolimus, tacrolimus, everolimus, tranilast, dexamethasone, and mycophenolic acid.

8(withdrawn). The pharmaceutical microsphere of claim 1, wherein the bioactive agent is selected from a group consisting of lovastatin, thromboxane A<sub>2</sub> synthetase inhibitors, eicosapentanoic acid, ciprostone, trapidil, angiotensin converting enzyme inhibitors, and heparin.

9(withdrawn). The pharmaceutical microsphere of claim 1, wherein the bioactive agent is selected from a group consisting of allicin, ginseng extract, flavone, ginkgo biloba extract, glycyrrhetic acid, and proanthocyanides.

10(withdrawn). The pharmaceutical microsphere of claim 1, wherein the bioactive agent comprises biological cells.

11(withdrawn). The pharmaceutical microsphere of claim 1, wherein the bioactive agent comprises a growth factor.

12(currently amended). A method for administering a pharmaceutical microsphere into a body of a patient comprising:

providing the pharmaceutical microsphere that comprises a bioactive agent consisted of heparin and a gelatin carrier, said gelatin carrier encapsulating said heparin bioactive agent, wherein the ~~biological~~ gelatin carrier is crosslinked with a crosslinking agent selected from a group consisting of genipin, its analog, derivatives, and combinations thereof; and

Appn. Number 10/622,303 (Sung et al.) GAU 1614 Amnt. B contd. Page 5

delivering said pharmaceutical microsphere into the body ~~for therapeutic treatment.~~

13-20(cancelled).

21(previously presented). The method of claim 12, wherein said delivering is carried out orally for the patient.

22(previously presented). The method of claim 12, wherein said delivering is carried out via intramuscular administration for the patient.

23(previously presented). The method of claim 12, wherein said microsphere has an average diameter between 20 and 100  $\mu\text{m}$ .

24(previously presented). The method of claim 12, wherein a degree of crosslinking of the crosslinked gelatin is about 60%.

25(new). The method of claim 12, wherein said microsphere is prepared by an emulsification-solvent-extraction method.

26(new). The method of claim 12, wherein said microsphere is manufactured by a spray drying process.